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Attachment
MEMORANDUM OF UNDERSTANDING
Between the
Spent Nuclear Fuel Project (PHMC)
And
Bechtel Hanford Incorporated
14 pages (Including Coversheet)

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MEMORANDUM OF UNDERSTANDING

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And

Bechtel Hanford Incorporated

Purpose

This Memorandum of Understanding (MOU) delineates the overall management and financial responsibilities of the Spent Nuclear Fuel (SNF) Project, and Environmental Restoration Project (ERP) with respect to the turnover and acceptance of the 100 K Area Facilities that are currently being utilized by the SNF Project to the Environmental Restoration Contractor (ERC) for Surveillance and Maintenance (S&M) and eventual Decontamination and Decommissioning (D&D). This MOU is being established in order to perform out-year planning and will be updated in the future when final facility configurations can be better defined.

Scope

This MOU establishes the roles and responsibilities of each Project Hanford contractor that is, or, will be, associated with management of the 100 K Area Facilities listed in Attachment 2. This agreement is limited to activities that relate to the 100 K Area Facilities and does not cover any other Hanford Site environmental restoration activities. Any change to this document requires the concurrence of the SNF Project and the ERC. This agreement expires at the time that the ERC accepts responsibility for the 100 K Area Facilities.

Background

The K East (KE) and K West (KW) Basins were designed and constructed in the early 1950s for wet storage of spent nuclear fuel. The original purpose of the basins was to store irradiated fuel following its discharge from the 100 K Area Single Pass Production Reactors (SPRs). Water in the storage basins provided cooling to remove decay heat until the fuel was transferred to the chemical processing facilities in the 200 Areas of the Hanford Site, i.e., Plutonium Uranium Extraction (PURER) Facility. It also provided radiation shielding. The KE reactor and the KW reactor were shutdown in the early 1970s.

PURER was shutdown and placed on wet standby in 1972. The N Reactor continued to operate and generate electricity. As the N Reactor fuel storage basin approached its storage capacity, a decision was made to modify the K Basins to provide additional capacity for storing SNF. The KE Basin was modified in 1975 and the KW Basin in 1981 to provide for the handling and temporary storage of SNF from N Reactor.

N Reactor SNF was transferred to the K Basins from 1975 through 1989. Storage at the K Basins was intended to be only temporary to sustain operation of N Reactor while PURER was in standby. PURER was restarted in November 1983 and processed the N Reactor fuel as planned from November 1983 to December 1988, when operations were suspended because of an operational safety requirement violation. PURER never resumed special nuclear material recovery, and in December 1992 the U.S. Department of Energy, Richland Operations Office (RL) decided that the facility was not a viable option for future processing and would be deactivated. The decision to deactivate PURER left approximately 2,100 metric tons of N Reactor SNF and a small amount of SPR SNF in the K Basins. Additionally, there is

approximately 50 to 70 m^3 of sludge and a large amount of debris (SNF canisters, SNF storage racks, and miscellaneous items) that has accumulated in the K Basins. The SNF, and the sludge and debris will be removed from the K Basins and transported to the Canister Storage Building (CSB), Tank Waste Remediation System/Double Shell Tanks (TWRS/DSTs), and Solid Waste Storage (SWS).

A MOU between Westinghouse Hanford Company and Bechtel Hanford, Inc. was established in July of 1996 which set forth the agreements, responsibilities and Commitments for buildings/facilities, remedial action sites, utilities/services, and related administrative responsibilities at the Hanford Site for each of the Contractors. The MOU identified which contractor was responsible for each of the 100 K Area Facilities (Reference 1).

A Memorandum of Agreement (MOA) for *transition of* management responsibility for the 100 K Area Facilities was originally established in December 1996. At that time the SNF Project was to turn over the 100 K Area Facilities to the Facility Stabilization Project who then performed the work necessary to transition the facilities over to the ERC (Reference 2). This was superceded by a second MOA, dated December 5, 1997, (Reference 3) which describes the agreement between the Assistant Manager for Waste Management/SNF Project Division (AMW/SFD), the Assistant Manager for Facility Transition/Transition Program Division (AMF/TPD), and the Assistant Manager for Environmental Restoration/Restoration Projects Division (AME/RPD) on the financial and management responsibilities for direct transition of the 100 K Basins Facilities from AMW/SFD to AME/RPD.

Transition Plan

Transition of the 100 K Area Facilities from the SNF Project to the ERC will be accomplished following removal of all the SNF, sludge, debris, and water from the basins, and completion of all transition Endpoint Criteria requirements. The current schedule baseline for transition to occur from the SNF Project to the ERC is in 2007.

Roles and Responsibilities

The roles and responsibilities of the SNF Project and the ERC for transition of the 100 K Area facilities are described below. Funding will be provided by each contractor to support the planned activities described.

The details for clean-up of the basin water, the cleaning and disconnection of systems in the basins, the disconnection and flushing of the equipment in the Cold Vacuum Drying (CVD) Facility, and the degree of stabilization for 100 K Facilities to be turned over to the ERC, will be negotiated between SNF Project and the ERC and will be documented in the 100 K Area Facilities Turnover Agreement.

Final facility deactivation and placement into an S&M mode will be accomplished by completion of all turnover requirements as identified in the transition End Point Acceptance Criteria for 100 K Area Facilities.

Further, the SNF Project is pursuing a strategy with Ecology that would close the 1706KE Waste Treatment System (WTS), (currently has a RCRA Part A permit) under CERCLA as it already contained in the 100 Areas Remaining Sites CERCLA ROD. If that strategy is not found acceptable to Ecology, the 1706KE WTS will be closed under RCRA. This closure will be a SNF responsibility.

This document will be further amended upon any increase or decrease of scope. For example, the 167 K Cross-tie Tunnel, 105-KE Water Tunnel, and the 183-KE Pipe Tunnel are in the process of being transferred to SNF. Upon completion of the transfer, these will be added to the scope and will be included in the deactivation process.

SNF PROJECT

The SNF Project **will** provide funding and be responsible for management of 100 K Area Facilities currently under its control until turnover to the ERC. Prior to transition the SNF Project will:

- Remove all SNF, sludge, debris, and water from the basins.
- Clean and stabilize the basins, CVD Facility and other contaminated facilities.
- Develop an S&M Plan to be used by the ERC after transition of the facilities.
- Provide funding for the ERC to develop the transition End Point Criteria as identified in Attachment 1 and work to complete/implement those requirements prior to turnover.
- Review planning input with the ERC on an annual basis the Transition work scope and estimated cost. This review will occur in July beginning in FY 2000 and continues for as long as the transition work is in progress.

ERC

- Prior to transition the ERC will prepare transition End Point Criteria for approval by the SNF Project.
- After transition the ERC will assume overall responsibility for management of the 100 K Area Facilities, including S&M, program/project activities, dispositioning, regulatory interface, waste management, and any required environmental monitoring.
- The ERC will provide funding and be responsible for the 100 K Area Facilities S&M program after transition and lasting through the duration of the program.
- Review SNF Project planning input on an annual basis. This review will occur in July beginning in FY 2000 and continues for as long as the transition work is in progress.

References

1. Memorandum of Understanding Between Westinghouse Hanford Company and Bechtel Hanford, Inc., BHI-00888, Rev. 0, dated July 9, 1996.

2. Letter, N. H. Williams, FDH, and L. J. Olguin, FDH, to E. D. Sellers, RL, and J. E. Mecca. RL, "Programmatic Agreement for Transition of Management Responsibility for the 100 K Area Facilities," FDH-9656283, dated December 10, 1996.

3. Letter, C. A. Hansen, RL, to H. J. Hatch, FDH, "Contract No. DE-AC06-96RL13200 - Memorandum of Agreement (MOA) for Transition of Management Responsibility for the 100 K Basins Facilities", 97-SFD-27 1, dated December 5,1997.

Signatures

R. G. Jones, Vice President
Spent Nuclear Fuel Project
Fluor Daniel Hanford, Inc.

11/8/99
Date

S. D. Liedle, President
Bechtel Hanford, Inc.

11/3/99
Date

ATTACHMENT 1

Facility Transition End Point Criteria

The Facility Transition Endpoint Criteria will be developed and documented by the Environmental Restoration Contractor (ERC) with support from the Spent Nuclear Fuel (SNF) Project and approved by both. The Facility Transition Endpoint Criteria will be developed for the 100 K Area Facilities (Attachment 2). The Facility Transition End Point Criteria is developed based on the basic facility transition requirements specified in: DOE-EM-0246 Decommissioning Resource Manual, dated August 1995.

The Facility Transition Endpoint General Acceptance Criteria defined below are the starting point for any negotiations that may be needed in determining the end point criteria for any space, system, or attribute of a given building or complex.

End-Point General Acceptance Criteria

The following acceptance criteria for the 100 K Area Facilities deactivation and turnover to the ERC are general in nature and may or may not apply to each building or structure. It is expected that all criteria will be considered in developing end point criteria for each building, the objective of end point criteria being the demonstration of meeting the appropriate acceptance criteria for a building.

1. **A deactivation check sheet for the following criteria shall be prepared and completed for each building or group of buildings.**

   The criteria frill *be considered satisfied when the check sheet has been completed and signed by designated representatives from the two organizations. Final management approval signatures from both contractors are required when applicable criteria for a building have been approved for the building to be declared "Available for transitionlSurveillance and Maintenance (S&M). "*

2. **Fire Protection Systems (FPSs) downgraded to the extent allowed by applicable fire protection codes for building end point conditions.**

   The criteria will be satisfied when the fire protection systems and other requirements have been appropriately downgraded and the resulting operational fire protection equipment or systems are clearly identified in turnover documentation.

3. **Any roof leaks repaired and any suspect areas reviewed, with appropriate corrective action taken as necessary, such that further maintenance for a minimum 5-year period (from transition) is not expected.**

   The criteria are satisfied when the above conditions are met and documented Needed repairs must be complete and the roof condition described in the turnover documents.

4. **All office furniture and supplies shall be removed.**

The building being empty of all ,such material satisfies the criteria.

5. **Unnecessary spare parts / tools / portable equipment (those not required for Inactive Facilities Surveillance and Maintenance / Decontamination and Decommissioning (IFS&M / D&D) removed.**

The criteria are satisfied when none of these items remain in the building and any remaining items are identified, including storage location.

6. **All janitorial supplies and unattached hazardous materials removed. This is to include all hazardous materials used for deactivation and cleanup work.**

To satisfy the criteria, all items of this nature will have been removed from the building.

7. **All attached hazardous materials located, identified, quantified, labeled as necessary, and recorded.**

Submittal of, *and Environmental Restoration (ER) Project concurrence with, an accurate record of* all *hazardous materials remaining in the building will satisfy the criteria.*

8. **Loose and / or damaged asbestos removed or stabilized.**

Completion of these activities and documentation of the result of these activities, via an Asbestos Condition Assessment, will satisfy the criteria.

9. **Final radiological status survey available.**

To satisfy, the criteria, subject surveys and data will be filed in a readily retrievable manner, with an index identifying all such packages by file number and cross-references to enhance retrievability retrievability.

10. **All tanks, vessels, drums, etc. drained and heels removed or, with concurrence of the ER Project, they must be characterized for radionuclides and hazardous materials according to applicable federal and state regulations.**

The criteria will be .satisfied when the actions are complete and the associated documentation has been filed in the manner described for Acceptance Criterion Number 9.

11. **All elevator and crane systems are laid up with documentation of the type, weight, and class of fluid required for operation, should that become desirable in the future.** .

Correctly filed documentation of elevator status and the information identified in the criteria satisfy the requirement.

12. Electrical systems reduced to that necessary for S&M and subsequent D&D. This includes removal of emergency light fixtures and associated batteries. Where appropriate, centralize the remaining electrical services to a single point.

    The criteria will be satisfied when the subject systems are appropriately isolated and the isolation documented, including isolation location(s). Centralization of remaining electrical power supplies will be documented on as-built one-line schematics of the system. Documentation will be included in the filing system described by Acceptance Criterion Number 9.

13. Water supply systems will be isolated from the building and drained to eliminate the potential for leaks and/or freezing.

    Completion of the isolation and drain/blowdown work and appropriate documentation of the isolation location(s), external to the building foundation will evidence satisfaction of the criteria.

14. Documentation is available confirming that zero energy checks were made on all deenergized electrical circuits and isolated pressurized systems (e.g., water, service air, steam, etc.) using existing documents to the extent possible.

    To satisfy the criteria, documentation indicating the performance of the tests and test results will be signed by the performing organization and filed in accordance with (IA W) the requirements of Acceptance Criterion Number 9.

15. All temporary radiologically posted zones within or outside (immediately surrounding) the building are cleaned up and radiologically released.

    The criteria is satisfied when the work is complete and f *final surveys are filed IA W Acceptance Criterion Number 9.*

16. All heating, ventilation, and air conditioning supply air and exhaust air systems shut down and deenergized. The criterion includes evaluation and, as appropriate, the shutdown of the High-Efficiency Particulate Air (HEPA) filtered ventilation exhaust from process areas.

    To satisfy the criteria, all system shutdown dates and status will be logged into the turnover documents. The documents will be included in the building turnover files.

17. All stored radioactive and mixed waste will be removed.

    To satisfy the criteria, no loose radioactive or mixed waste will remain in or around the building.

18. All unneeded equipment will be shut down.

The criteria will be satisfied when the equipment is shirt down and deenergized and the appropriate information entered into the turnover documents, as described in Acceptance Criterion Number 9.

19. All permanent radiological contaminated zones will be decontaminated and released or the surface contamination levels reduced or fixed in place to minimize resuspension and/or migration of loose contamination. Radiological posting will be in compliance with the ERC procedures and the RadCon Manual..

Completion of the described activities and documentation of *the* f *nil stators will satisfy the criteria per Acceptance Criterion Number 9.*

20. Certified Vendor Information (CVI) index, equipment operating procedures and, as appropriate, operating records, prints, photographs, etc., are provided for the equipment contained in the K East/K West Facilities.

Completion of the following actions satisfies the criteria:

20.1 Design Documents

The K East/K [Vest Facilities design drawing/document system currently used by the SNF Project shall be the form and content for turnover of these items to the ER Project.

20.2 Operating Documents

Operating procedures for operating or intact equipment and systems, and facility surveillance and maintenance procedures will be turned over in the applicable facility documentation package. Recent operations and maintenance histories, as may be relevant to future operations and maintenance, will be included in the package.

21. Sealing (plugging) at the building isolates all effluent flow routes to disposal sites.

The criteria are .satisfied when the isolation is completed and a description of the isolation mechanisms and location are filed in the turnover documents.

22. Drains that fed K East/K West outfall structures are sealed and/or plugged for each building and screened at the outlet for varmint control. Associated National Pollutant Discharge Elimination System (NPDES) permit(s) will be revised or closed as appropriate.

The criteria are satisfied when the isolation is completed, descriptions of *isolation mechanisms and locations are filed, and NPDES issue resolutions are documented.*

23. All building penetrations (i.e., louvers, open piping, etc.) shall be closed off to prevent bird and animal intrusion.

    Completion of *the closures and documentation* of *the activity satisfies the criteria.*

24. The facilities will be screened for hazards categorization based on their "quiescent state" at the time of turnover, where appropriate (nuclear, radiological, industrial, etc.), when an initial screening based solely on quantities does not establish the minimum case. Where required, Safety Analysis Reports(s) (SARs) and corresponding Technical Specifications) (TSs) will be developed.

    Actions to eliminate existing TS(s), where continued application is not warranted, will have at least been initiated by submittal to the US. Department of *Energy, Richland Operations Office (RL) before turnover of the facility. Continuing or follow-on actions will be described, and a complete documentation package will be prepared for turnover. Turnover of the required documentation satisfies the criteria*

25. All pending Radiation Occurrence Reports, Unusual Occurrence Reports, and/or any other out-of-standard condition reports complete and closed out prior to turnover for long term S&M activities.

    Documentation closing all audit findings, QUEST, HATS and Occurrence Reports is required.

26. All doors should be bolted shut from the inside except for those needed for entrance or to comply with emergency egress requirements. Emergency exit doors should have crash-bar systems installed. Keys needed for entrance shall be turned over to the ER Project.

    The criteria are satisfied when a listing and floor plan showing entry and emergency exit locations and the appropriate keys are turned over to the ER Project.

27. Any required environmental monitoring systems maintained by the ERC are identified and in serviceable condition.

    To satisfy the criteria, the required systems will be tested and the results recorded, and documentation of *the operability* of *the systems will be included in the turnover files.*

28. Water will be removed from seal pits, except as specifically excluded by facility end point criteria, and the radiological condition of the pits documented. Pits shall meet the surface contamination conditions specified in Acceptance Criterion Number 19.

    Completion of water removal and documentation of endpoint radiological conditions, as required by Acceptance Criterion Number 9, will satisfy the criteria.

29. Debris and water removed from basins, sumps and pits, except as specifically excluded by facility end point criteria. Exposed surfaces decontaminated or treated to minimize resuspension or migration. Radiological conditions documented and areas posted per the requirements of Acceptance Criterion Number 19.
    Completion of water removal and surface treatments, with endpoint radiological conditions documented per Acceptance Criterion Number 9, satisfies this criteria.
30. Facilities will be transitioned in a state, which facilitates accessibility and visibility.
    All systems that could present radiological and/or industrial safety concern if left open shall be adequately closed off. *Conversely, rooms/tanks/pits/etc. that do not present a radiological or industrial safety concern should be normally left open, i.e., doors removed, covers installed ajar with viewing access allowed*
31. Administrative Records

    This criterion will be met when all administrative records for the facilities are turned over at the time of *transition.*

Attachment 2

100-K Area Facilities to Transition

100-K Area Facilities Operating Units

SHOP/STORAGE FACILITIES

166-AKE	Material Storage Building
1614-KE	Environmental Monitoring Station
1705-KE	Effluent Water Treatment
1706-KE	Shop/Storage/Office (Former Research Labs)
1706-KEL	Shop/Storage/Office (Former Research Labs)
1706-KER	Shop/Storage/Office (Former Research Labs)
1713-KE	Shop Building
1713-KW	Warehouse/Shop
1714-KE	Oil and Paint Shop
1714-KW	Oil/Paint Storage
1717-K	Maintenance Shop
1724-K	New Shop Addition (to be completed in FYI 997)

POTABLE & SERVICE WATER/FISH REARING FACILITIES

181-KE	River Pump House
183-KW	Chlorine Vault
183.1-KE	Headhouse and Chlorine Vault
183.2-KE	Sedimentation Basinsl
183.3-KE	Filtersl
183.4-KE	Clearwells
183.5-KE	Lime House
183.6-KE	Lime House
185-K	Potable Water Plant
190-KE	Main Pump House
1908-K	Outfall Structure
1908-KE	Outfall Instrumentation Building

ELECTRICAL SERVICE FACILITIES

119-KE	Exhaust Air Sample Building
165-KE	Power Control Building Electrical Switch Gear, Control Room
165-KW	Switch Gear, Control Room

BASINS

105-KE	Basin, Office & Fuel Transfer Area
105-KW	Basin, Office & Fuel Transfer Area

CVD FACILITY

Cold Vacuum Drying (CVD) Facility

NOTE: 1 - These operating units, although included in this list, may be turned-over in a different manner depending on the future needs of the Confederated Tribes and Bands of the Yakima Indian Nation for fish-rearing.

100 K Area Waste Sites

WASTE SITES

All 100 K Area waste sites that are assigned to SNF in Waste Identification Data System (WIDS) at the time of transition.